



**REPORTED:** February 2, 2018

**PROJECT NO.:** SMSD-17-7261

**CLIENT:** Santa Monica Malibu Unified School District  
Facilities Improvement Projects  
2828 4<sup>th</sup> Street  
Santa Monica, California 90405

**ATTENTION:** Facilities Improvement Projects

**REF:** Ambient Air Sampling Polychlorinated Biphenyls (PCBs)  
Franklin Elementary School- Building F  
Classrooms F8, F11, and F14

## **1 INTRODUCTION**

### **1.1 Background**

Alta Environmental (Alta) was retained by Santa Monica Malibu Unified School District (SMMUSD) to conduct ambient air sampling for the presence of polychlorinated biphenyls (PCBs) at Franklin Elementary School located at 2400 Montana Ave in Santa Monica, California (Site). The ambient air sampling was conducted on January 27, 2018 to January 28, 2018 by Fabian Ruvalcaba and Scott Fan, employed by Alta.

### **1.2 Objectives**

The air sampling was conducted to determine, within the analytical limitations, airborne concentrations of PCBs in the subject classrooms.

### **1.3 Scope of Services**

Alta conducted ambient air monitoring at the Site for a 24-hour period to determine airborne concentrations of PCBs in the subject classrooms and compare those findings to the EPA's Exposure Levels for Evaluating PCBs in School Indoor Air (ng/m<sup>3</sup>) Age range: 6-<12 yr. (elementary school).

## **2 ANALYTICAL AND FIELD METHODOLOGIES**

### **2.1 Activities**

Alta collected six PCB samples in the following classrooms F8, F11, and F14. All samples were collected near the center of classrooms and in breathing zone height. Sampling was conducted with the lighting locked-on (light on) and the air conditioning locked-off for the duration of the sampling. Lighting was locked-on and the air conditioning was locked-off by District mechanical technicians.

#### **Alta Environmental**

3777 Long Beach Boulevard Annex Building Long Beach CA 90807 United States of America  
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## 2.2 Analytical Methodology

Air samples were collected without a pre-filter and were analyzed for Aroclors on a polyurethane foam cartridge with a constant flow rate of approximately 5 liters per minute. Air samples were collected in the breathing zone height using a tripod. A quality control field blank accompanied these samples to the laboratory and was analyzed with the exposed samples. Samples were analyzed using EPA Method T0-10A, after extraction compounds are introduced into a gas chromatograph utilizing an Electron Capture Detector (ECD).

Analysis of the samples was conducted at ALS Environmental, Salt Lake City, Utah, an AIHA-LAP and NELAC accredited laboratory.

## 3 AMBIENT AIR EXPOSURE SAMPLE RESULTS

To calculate the exposure levels for evaluating PCBs in indoor school air, Federal EPA made the following assumptions:

- PCB concentrations in dust and soils in and around schools are the same as in average homes or other buildings without elevated PCBs.
- Adults and children less than three years old are in school for 8 hours per day; all other children are in school for six and a half hours per day
- Adults and children less than three years old are in school 185 days per year. All other children are in school for 180 days.

Results of the samples collected from the Site during our investigation are presented in the table below.

Sample Number/Location	Analyte Aroclor <sup>(1)</sup>	Results: nanograms per cubic meter of air (ng/m <sup>3</sup> )	Exposure levels for evaluating PCBs (Age: 6-<12 yr) in school indoor air (ng/m <sup>3</sup> )	Exceeds Exposure Level?
F01 Classroom F8	Aroclor 1121	<28	300	No
	Aroclor 1232	<14	300	No
	Aroclor 1016	<14	300	No
	Aroclor 1242	<14	300	No
	Aroclor 1248	<14	300	No
	Aroclor 1254	<14	300	No
	Aroclor 1260	<14	300	No
	Aroclor 1262	<14	300	No
	Aroclor 1268	<14	300	No

Sample Number/Location	Analyte Aroclor <sup>(1)</sup>	Results: nanograms per cubic meter of air (ng/m <sup>3</sup> )	Exposure levels for evaluating PCBs (Age: 6-<12 yr) in school indoor air (ng/m <sup>3</sup> )	Exceeds Exposure Level?
F02 Classroom 310	Aroclor 1121	<28	300	No
	Aroclor 1232	<14	300	No
	Aroclor 1016	<14	300	No
	Aroclor 1242	<14	300	No
	Aroclor 1248	<14	300	No
	Aroclor 1254	<14	300	No
	Aroclor 1260	<14	300	No
	Aroclor 1262	<14	300	No
Aroclor 1268	<14	300	No	

Sample Number/Location	Analyte Aroclor <sup>(1)</sup>	Results: nanograms per cubic meter of air (ng/m <sup>3</sup> )	Exposure levels for evaluating PCBs (Age: 6-<12 yr) in school indoor air (ng/m <sup>3</sup> )	Exceeds Exposure Level?
F03 Classroom 314	Aroclor 1121	<28	300	No
	Aroclor 1232	<14	300	No
	Aroclor 1016	<14	300	No
	Aroclor 1242	<14	300	No
	Aroclor 1248	<14	300	No
	Aroclor 1254	<14	300	No
	Aroclor 1260	<14	300	No
	Aroclor 1262	<14	300	No
Aroclor 1268	<14	300	No	

Sample Number/Location	Analyte Aroclor <sup>(1)</sup>	Results: nanograms per cubic meter of air (ng/m <sup>3</sup> )	Exposure levels for evaluating PCBs (Age: 6-<12 yr) in school indoor air (ng/m <sup>3</sup> )	Exceeds Exposure Level?
F04B Field Blank	Aroclor 1121	N/A	300	N/A
	Aroclor 1232	N/A	300	N/A
	Aroclor 1016	N/A	300	N/A
	Aroclor 1242	N/A	300	N/A
	Aroclor 1248	N/A	300	N/A
	Aroclor 1254	N/A	300	N/A
	Aroclor 1260	N/A	300	N/A
	Aroclor 1262	N/A	300	N/A
Aroclor 1268	N/A	300	N/A	N/A

1) An Aroclor is the tradename for a specific PCB mixture.

The laboratory reports, chain-of-custody documents, and project notes are provided as attachments.

## 4 DISCUSSION

Air samples were collected in the breathing zone and near the center of each classroom. Prior to, and after the sampling, Alta observed no abnormalities had occurred during the sampling. At the start and end of survey, Alta noted that there was no change in classroom conditions from start to finish.

Please note that the samples collected are representative of the conditions during the time of the survey. If conditions change, please notify Alta immediately.

## 5 CONCLUSIONS

None of the target Aroclors were detected in any of the samples collected. The results were reported to be below the EPA's Exposure Levels for Evaluating PCBs in School Indoor Air (ng/m<sup>3</sup>) Age: 6-<12 yr (elementary school) of 300 ng/m<sup>3</sup>.

<https://www.epa.gov/pcbs/exposure-levels-evaluating-polychlorinated-biphenyls-pcbs-indoor-school-air>.

The criteria are as follows:

Age in Years Range	1 to <2	2 to <3	3 to <6	6 to <12	12 to <15	15to <19	19 +
PCBs ng/m <sup>3</sup>	100	100	200	300	500	600	500

## **6 RECOMMENDATIONS**

The EPA recommends that concentrations of PCBs in indoor air be kept as low possible and that the total PCB exposure be maintained below the oral reference dose (RfD) level of 20 ng of PCBs per kilogram of body weight per day (ng PCB/kg body weight). A RfD is an estimate of daily exposure to the human population (i.e., sensitive subgroups) that is likely to be without an appreciable risk of harmful effects during a life time. The referenced airborne exposure levels are calculated in conjunction with the RfD assuming the exposure through pathways, other than air, are equal to the average exposures for other pathways.

## **7 ASSUMPTIONS AND LIMITATIONS**

This report was prepared exclusively for use by Santa Monica Malibu Unified School District, and may not be relied upon by any other person or entity without Alta Environmental' s express written permission. The information, conclusions and recommendations described in this report apply to conditions existing at certain locations when services were performed and are intended only for the specific purposes, locations, time frames and project parameters indicated. Alta Environmental cannot be responsible for the impact of any changes in environmental standards, practices or regulations after performance of services.

In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the current standard of practice for similar types of studies.

As applicable, Alta Environmental has relied in good faith upon representations and information furnished by individuals with respect to operations and existing property conditions, to the extent that they have not been contradicted by data obtained from other sources. Accordingly, Alta Environmental accepts no responsibility for any deficiencies, omissions, misrepresentations, or fraudulent acts of persons interviewed.

Alta Environmental will not accept any liability for loss, injury claim, or damage arising directly or indirectly from any use or reliance on this report. Alta Environmental makes no warranty, expressed or implied.

This report is issued with the understanding that the client, the property owner, or its representative is responsible for ensuring that the information, conclusions, and recommendations contained herein are brought to the attention of the appropriate regulatory agencies, as required.

Alta Environmental' s investigation and the conclusions and recommendations generated as a result reflect a subjective evaluation of limited data and thus may not be representative of all conditions present at the site. If you have any questions, please feel free to call the undersigned at (562) 495-5777.

**8 SIGNATORY**

Respectfully submitted by:

**Alta Environmental**



Scott Fan  
Industrial Hygiene Specialist I

Reviewed by:

**Alta Environmental**



David Schack  
Vice-President, Building Sciences

Attachments: Laboratory Report, Chain-of-Custody Document and Alta Field Notes

# Attachments

**Laboratory Report, Chain-of-Custody Document, Alta Field Notes**



# ANALYTICAL REPORT

Report Date: February 02, 2018

David Schack  
ALTA Environmental  
3777 Long Beach Blvd.  
Long Beach, CA 90807

Phone: (562) 495-5777

E-mail: david.schack@altaenviron.com

Workorder: **34-1803053**

Project ID: Franklin E.S.-Bldg F 012718

Purchase Order: SMSO-17-7261

Project Manager Paul E. Pope

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
F01	1803053001	01/27/18	01/30/18	Bldg F
F02	1803053002	01/27/18	01/30/18	Bldg F
F03	1803053003	01/27/18	01/30/18	Bldg F
Franklin 04B	1803053004	01/27/18	01/30/18	Bldg F

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# ANALYTICAL REPORT

Workorder: **34-1803053**

Client: ALTA Environmental

Project Manager: Paul E. Pope

## Analytical Results

Sample ID: <b>F01</b>	Sampling Site: Bldg F	Collected: 01/27/2018
Lab ID: 1803053001	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: Air Volume 7214.4 L	

### Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m <sup>3</sup> )	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: <b>F02</b>	Sampling Site: Bldg F	Collected: 01/27/2018
Lab ID: 1803053002	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: Air Volume 7257.6 L	

### Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m <sup>3</sup> )	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	



# ANALYTICAL REPORT

Workorder: **34-1803053**

Client: ALTA Environmental

Project Manager: Paul E. Pope

## Analytical Results

Sample ID: <b>F03</b>	Sampling Site: Bldg F	Collected: 01/27/2018
Lab ID: 1803053003	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: Air Volume 7185.6 L	

### Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m <sup>3</sup> )	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: <b>Franklin 04B</b>	Sampling Site: Bldg F	Collected: 01/27/2018
Lab ID: 1803053004	Media: PUF Tube	Received: 01/30/2018
Matrix: Air	Sampling Parameter: NA	

### Analysis Method - EPA TO-10A, PCBs

Preparation: EPA 3540 Soxhlet Ext., EPA TO-10A	<u>Weight/Volume</u>	Analysis: EPA TO-10A, PCBs Air	Instrument ID: GCE03
Batch: ENVX/26128 (HBN: 207681)	Initial: 1 filter	Batch: EGC/7152 (HBN: 207789)	Percent Solid: NA
Prepared: 01/31/2018	Final: 10 mL	Analyzed: 01/31/2018 00:00	Report Basis: Wet

Analyte	Result (ug/sample)	Result (ng/m <sup>3</sup> )	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	NA	0.20	1	
Aroclor 1232	ND	NA	0.10	1	
Aroclor 1016	ND	NA	0.10	1	
Aroclor 1242	ND	NA	0.10	1	
Aroclor 1248	ND	NA	0.10	1	
Aroclor 1254	ND	NA	0.10	1	
Aroclor 1260	ND	NA	0.10	1	
Aroclor 1262	ND	NA	0.10	1	
Aroclor 1268	ND	NA	0.10	1	

## Comments

**Quality Control: EPA TO-10A, PCBs - (HBN: 207789)**

Surrogate recoveries for sample 1803055005 were outside of QC limits. NCCAR #1436 was issued.



# ANALYTICAL REPORT

Workorder: **34-1803053**

Client: ALTA Environmental

Project Manager: Paul E. Pope

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-10A, PCBs	/S/ Mila V. Potekhin 02/01/2018 16:03	/S/ Lyle Edwards 02/02/2018 09:10

## Laboratory Contact Information

ALS Environmental  
960 W Levoe Drive  
Salt Lake City, Utah 84123

Phone: (801) 266-7700  
Email: als.lt.lab@ALSGlobal.com  
Web: www.alssl.com

## General Lab Comments

The results provided in this report relate only to the items tested.  
Samples were received in acceptable condition unless otherwise noted.  
Samples have not been blank corrected unless otherwise noted.  
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	ANAB (DoD ELAP)	ADE-1420	<a href="http://www.anab.org/accredited-organizations/">http://www.anab.org/accredited-organizations/</a>
	Utah (NELAC)	DATA1	<a href="http://health.utah.gov/lab/labimp/">http://health.utah.gov/lab/labimp/</a>
	Nevada	UT00009	<a href="http://ndep.nv.gov/bsdwlabservice.htm">http://ndep.nv.gov/bsdwlabservice.htm</a>
	Oklahoma	UT00009	<a href="http://www.deq.state.ok.us/CSDnew/">http://www.deq.state.ok.us/CSDnew/</a>
	Iowa	IA# 376	<a href="http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx">http://www.iowadnr.gov/InsideDNR/RegulatoryWater.aspx</a>
	Texas (TNI)	T104704456-11-1	<a href="http://www.tceq.texas.gov/field/qa/lab_accred_certif.html">http://www.tceq.texas.gov/field/qa/lab_accred_certif.html</a>
	Washington	C596-16	<a href="http://www.ecy.wa.gov/programs/eap/labs/index.html">http://www.ecy.wa.gov/programs/eap/labs/index.html</a>
Industrial Hygiene	Kansas	E-10416	<a href="http://www.kdheks.gov/lipo/index.html">http://www.kdheks.gov/lipo/index.html</a>
	AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>
Washington		C596-16	<a href="http://www.ecy.wa.gov/programs/eap/labs/index.html">http://www.ecy.wa.gov/programs/eap/labs/index.html</a>
	Lead Testing: CPSC	ANAB (ISO 17025, CPSC)	ADE-1420
Soil, Dust, Paint ,Air		AIHA LAP LLC (ISO 17025 & IHLAP/ELLAP)	101574
Dietary Supplements	ACLASS (ISO 17025)	ADE-1420	<a href="http://www.aiclasscorp.com">http://www.aiclasscorp.com</a>



## ANALYTICAL REPORT

**Workorder:** 34-1803053

**Client:** ALTA Environmental

**Project Manager:** Paul E. Pope

### Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.

RL = Reporting Limit, a verified value of method/media/instrument sensitivity.

CRDL = Contract Required Detection Limit

Reg. Limit = Regulatory Limit.

ND = Not Detected, testing result not detected above the MDL or RL.

< This testing result is less than the numerical value.

\*\* No result could be reported, see sample comments for details.

### Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.

J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.

B = Qualifier indicates that the analyte was detected in the blank.

E = Qualifier indicates that the analyte result exceeds calibration range.

P = Qualifier indicates that the RPD between the two columns is greater than 40%.



## Quality Control Sample Batch Report

### Analysis Information

**Workorder:** 1803053

**Limits:** Historical/Performance

**Basis:** ALS Laboratory Group

**Preparation:** EPA 3540 Soxhlet Ext., EPA TO-10A

**Batch:** ENVX/26128 (HBN: 207681)

**Prepared By:** Xiao Y Chiang

**Analysis:** EPA TO-10A, PCBs

**Batch:** EGC/7152 (HBN: 207789)

**Analyzed By:** Mila V. Potekhin

### Blank

<b>MB:</b> 585434			
<b>Analyzed:</b> 01/31/2018 00:00			
<b>Units:</b> ug/sample			
Analyte	Result	MDL	RL
Aroclor 1221	ND	NA	0.200
Aroclor 1232	ND	NA	0.100
Aroclor 1016	ND	NA	0.100
Aroclor 1242	ND	NA	0.100
Aroclor 1248	ND	NA	0.100
Aroclor 1254	ND	NA	0.100
Aroclor 1260	ND	NA	0.100
Aroclor 1262	ND	NA	0.100
Aroclor 1268	ND	NA	0.100

### Laboratory Control Sample - Laboratory Control Sample Duplicate

<b>LCS:</b> 585435					<b>LCSD:</b> 585436				
<b>Analyzed:</b> 01/31/2018 00:00					<b>Analyzed:</b> 01/31/2018 00:00				
<b>Dilution:</b> 1					<b>Dilution:</b> 1				
<b>Units:</b> ug/sample					<b>Units:</b> ug/sample				
Analyte	Result	Target	% Rec	QC Limits	Result	% Rec	RPD	QC Limits	
Aroclor 1221	3.67	4.00	91.8	58.8 112.4	3.76	94.0	2.42	0.0 20.0	
Aroclor 1232	3.68	4.00	92.0	70.6 106.9	3.74	93.5	1.62	0.0 20.0	
Aroclor 1016	3.47	4.00	86.8	44.8 124.5	3.57	89.3	2.84	0.0 20.0	
Aroclor 1242	3.59	4.00	89.8	73.0 105.6	3.67	91.8	2.20	0.0 20.0	
Aroclor 1248	3.74	4.00	93.5	41.5 135.2	3.80	95.0	1.59	0.0 20.0	
Aroclor 1254	3.85	4.00	96.3	74.8 104.5	3.91	97.8	1.55	0.0 20.0	
Aroclor 1260	3.86	4.00	96.5	73.2 104.5	3.93	98.3	1.80	0.0 20.0	
Aroclor 1262	4.00	4.00	100	67.7 109.2	4.07	102	1.73	0.0 20.0	
Aroclor 1268	4.03	4.00	101	29.7 144.9	4.14	104	2.69	0.0 20.0	

### Surrogate Recoveries

<b>Surrogate</b>	Tetrachloro-m-xylene		
<b>QC Limits</b>	70.0	130.0	
<b>Units</b>	ug/sample		
<b>Lab ID</b>	<b>Result</b>	<b>Target</b>	<b>% Recovery</b>
585434-MB	0.492	0.500	98.4
1803053002	0.505	0.500	101
1803055001	0.494	0.500	98.8
1803055003	0.500	0.500	100
1803053004-FLDB	0.498	0.500	99.6
1803055004	0.495	0.500	99.0
1803055005-FLDB	0.0828	0.500	* 16.6



# Quality Control Sample Batch Report

## Analysis Information

**Workorder:** 1803053

**Limits:** Historical/Performance

**Basis:** ALS Laboratory Group

**Preparation:** EPA 3540 Soxhlet Ext., EPA TO-10A

**Batch:** ENVX/26128 (HBN: 207681)

**Prepared By:** Xiao Y Chiang

**Analysis:** EPA TO-10A, PCBs

**Batch:** EGC/7152 (HBN: 207789)

**Analyzed By:** Mila V. Potekhin

## Surrogate Recoveries

<b>Surrogate</b>	Tetrachloro-m-xylene		
<b>QC Limits</b>	70.0	130.0	
<b>Units</b>	ug/sample		
<b>Lab ID</b>	<b>Result</b>	<b>Target</b>	<b>% Recovery</b>
1803053003	0.502	0.500	100
585435-LCS	0.487	0.500	97.4
1803053001	0.510	0.500	102
1803055002	0.512	0.500	102
585436-LCSD	0.493	0.500	98.6

## Comments

Surrogate recoveries for sample 1803055005 were outside of QC limits. NCCAR #1436 was issued.

## QC Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Analyst	Peer Review
/S/ Mila V. Potekhin 02/01/2018 16:03	/S/ Lyle Edwards 02/02/2018 09:10

## Symbols and Definitions

- \* - Analyte above reporting limit or outside of control limits
- ▲ - Sample result is greater than 4 times the spike added
- - Sample and Matrix Duplicate less than 5 times the reporting limit
- - Result is above the calibration range
- # - The Matrix Spike, Matrix Spike duplicate or Matrix Duplicate is reported for your information only. The sample matrix may be inappropriate for the method selected.

- RPD - Relative % Difference (Spike / Spike Duplicate)
- ND - Not Detected (U - Qualifier also flags analyte as not detected)
- NA - Not Applicable
- QC results are not adjusted for moisture correction, where applicable



# Air - Chain of Custody Record & Analytical Service Request

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1803053

Requested Turnaround Time in Business Days (Surcharges) please circle 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard	ALS Project No.
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Company Name & Address (Reporting Information) Alta Environmental 3777 Long Beach Boulevard, Annex Building Long Beach, CA 90807		Project Name Franklin E.S. - Building F		ALS Contact:		Comments e.g. Actual Preservative or specific instructions
Project Manager Cesar Ruvalcaba		Project Number SM50-17-7261		Analysis Method		
Phone 562-495-5777	Fax	P.O. # / Billing Information		EPA TO-10A (PCB)		
Email Address for Result Reporting cesar.ruvalcaba@altaenviron.com		Sampler (Print & Sign)				

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	EPA TO-10A (PCB)	Comments
F01		1/27-28/18	0715 0715						X	ICE
F02			0717 0717						X	
F03			0720 0720						X	
<del>F04</del> Franklin 04B			N/A						X	
Decommed F04 as		Franklin 04B - changed to match sample received. was 01/30/2018								

Report Tier Levels - please select				Project Requirements (MRLs, QAPP)			
Tier I - Results (Default if not specified) _____		Tier III (Results + QC & Calibration Summaries) _____		EDD required Yes / No		Chain of Custody Seal: (Circle)	
Tier II (Results + QC Summaries) X		Tier IV (Data Validation Package) 10% Surcharge X		Type: _____ Units: _____		INTACT BROKEN ABSENT	
Relinquished by: (Signature)	Date: 1/28/18	Time: 1500	Received by: (Signature) DEREK K	Date: 1/29/18	Time: 2:25pm		
Relinquished by: (Signature)	Date: 1/29/18	Time: 2:25pm	Received by: (Signature) DEREK K	Date:	Time:	Cooler / Blank Temperature 7.0°C	

101 LPHH ... 1/29/18 0917

**ALS-SALT LAKE CITY-RELATED INFORMATION REPORT (CRIR)**

**COOLER OR CONTAINER INFORMATION CHECKLIST (Fill In or Circle)**

Client Name: <u>Alta Env</u>		Project/Task/Site: <u>180303</u>							
Date/Time of Receipt: <u>01/30/2018 9:42</u>		Number of Coolers Received: <u>1</u>							
Condition of Coolers: <u>Acceptable/Unacceptable</u>		Temperature Control: <u>Present/Not Included</u>							
Cooler Custody Seals: <u>Present/Absent/NA</u>		Location Temp Taken: <u>Control/Between Samples</u>							
Container Custody Seals: <u>Present/Absent/NA</u>		Are all temperatures within project specific guidelines? <u>Yes/No/NA</u>							
Ice Present: <u>Yes/No/NA</u>		VOA Headspace Present? <u>Yes/No/NA</u>							
pH Check Performed:	Metals	Yes/No/NA	Total Phenolics	Yes/No/NA	NO3/NO2	Yes/No/NA			
	Cyanide	Yes/No/NA	TPH - 418.1	Yes/No/NA	Oil & Grease	Yes/No/NA			
	Sulfide	Yes/No/NA	COD	Yes/No/NA	Total Phosphorous	Yes/No/NA			
	Ammonia	Yes/No/NA	TKN	Yes/No/NA	Gross A.B, Gamma Spec	Yes/No/NA			
Cooler Received	DCL Cooler No.	Temp.	Cooler Received	DCL Cooler No.	Temp.	Cooler Received	DCL Cooler No.	Temp.	
1	C18 <u>8202</u>	<u>7</u> °C	4	C18	°C	7	C18	°C	
2	C18	°C	5	C18	°C	8	C18	°C	
3	C18	°C	6	C18	°C	9	C18	°C	
Taken By: <u>[Signature]</u>		Signature: <u>Marianne Schmith</u>		Printed Name		Date: <u>01/30/2018</u>		Date	

**CLIENT-RELATED INFORMATION**

<input type="checkbox"/> Missing Cooler	<input type="checkbox"/> Missing Samples/Bottles	<input type="checkbox"/> Incorrect Preservation	<input type="checkbox"/> Insufficient Sample Volume
<input type="checkbox"/> Cooler Conditions	<input type="checkbox"/> Broken/Leaking Samples	<input type="checkbox"/> pH Criteria Not Met	<input type="checkbox"/> Chain of Custody Problems
<input type="checkbox"/> Missing Paperwork	<input type="checkbox"/> Incorrect Bottle Type	<input type="checkbox"/> Residual Chlorine Present	<input type="checkbox"/> Other:
<input type="checkbox"/> Missing/Incorrect Bottle Labels	<input type="checkbox"/> Cooler Temperatures Out of Range	<input type="checkbox"/> Head Space in Bottles	

**BRIEFLY DESCRIBE THE PROBLEM AND THE ACTION TAKEN:**

Sample F04 was changed to match what was received (Franklin 04B)

Sample MHS05B was received as MHS05. changed to match what was on COC.

Client Notified? YES  No

**Response Required Within 24 Hours**

**PROJECT MANAGEMENT**

**PROJECT MANAGER COMMENTS:**

ALS Project Manager: \_\_\_\_\_ Returned to Sample Receipt by: \_\_\_\_\_ Date: \_\_\_\_\_  
Printed Name Signature



ORIGIN: D1-GBA (562) 495-5777  
 MARSSA YAKUS  
 ALTA ENVIRONMENTAL  
 3777 LONG BEACH BOULEVARD  
 ANNEX BUILDING  
 LONG BEACH, CA 90807  
 UNITED STATES US

SHIP DATE: 29 JAN 18  
 ACTWGT: 27.00 LB  
 CAD: 101384718/NET3980

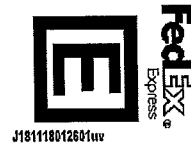
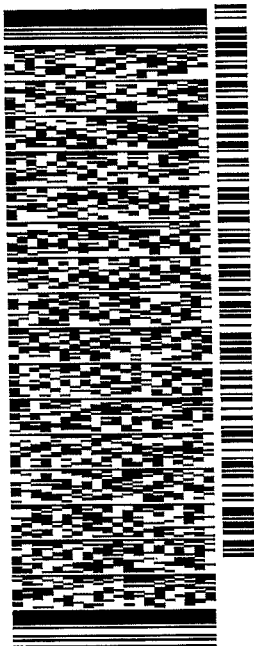
BILL SENDER

TO **SAMPLE RECEIVING**  
**ALS ENVIRONMENTAL**  
**960 WEST LEVOY DRIVE**

**SALT LAKE CITY UT 84123**

REF: SMSD-17-7261, SMSD-17-7239

INV: (180) 126-6770  
 PO: DEPT:



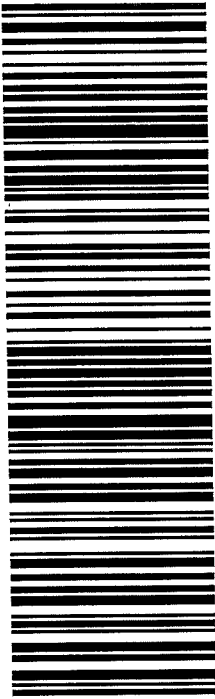
J181118012631uv

TRK# 7713 5271 1552  
 0201

TUE - 30 JAN 10:30A  
 PRIORITY OVERNIGHT

**WLBTFEA**

UT-US 84123  
**SLC**



552J11122DIDGA5

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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